

WHAT IS CLAIMED IS:

1. A mobile platform high-speed broadband communications system for a mobile platform, the mobile platform high-speed broadband communications system comprising:
  - a mobile communications terminal having a single first antenna;
  - a satellite in two-way communication with the mobile communications terminal through the first antenna; and
    - a base station in two-way communication with the satellite, wherein a return link signal is transmitted from the first antenna of the mobile communications terminal to the satellite on a first frequency;
    - the return link signal is retransmitted from the communications satellite to the base station on a second frequency;
    - a forward link signal is transmitted from the base station to the satellite on the first frequency;
    - the forward link signal is retransmitted from the satellite to the first antenna of the mobile communications terminal on the second frequency; and
    - the forward link signal is received by the first antenna.
2. The mobile platform high-speed broadband communications system for a mobile platform according to claim 1, wherein the mobile communications terminal and the first antenna are in an aircraft.
3. The mobile platform high-speed broadband communications system for a mobile platform according to claim 1, wherein the mobile platform includes the mobile communications terminal and the first antenna, and the first antenna is capable of maintaining a communications lock on the satellite when the mobile platform is in motion.
4. The mobile platform high-speed broadband communications system for a mobile platform according to claim 1, wherein:
  - the return link signal from the mobile communications terminal to the communications satellite, and the forward link signal from the base station to the communications satellite are received by a single transponder of the satellite; and
  - the forward link signal from the communications satellite to the base station, and the return link signal from the satellite to the first antenna of the mobile communications terminal are transmitted by the single transponder of the satellite.

5. The mobile platform high-speed broadband communications system for a mobile platform according to claim 1, further comprising a remote network in communication with the base station, wherein the mobile communications terminal and the antenna are part of the mobile platform.

6. The mobile platform high-speed broadband communications system for a mobile platform according to claim 5, wherein the remote network is a private network.

7. The mobile platform high-speed broadband communications system for a mobile platform according to claim 5, wherein the remote network is the Internet.

8. The mobile platform high-speed broadband communications system for a mobile platform according to claim 5, wherein:

the communication between the remote network and the base station is two-way communication;

the return link signal is a request for data from the Internet; and

the forward link signal is a response to the request.

9. The mobile platform high-speed broadband communications system for a mobile platform according to claim 1, wherein the mobile platform further comprises a data entry device in communication with the antenna of the mobile communications terminal, and the communication between the data entry device and the antenna is two-way communication.

10. The mobile platform high-speed broadband communications system for a mobile platform according to claim 1, wherein the mobile communications terminal further comprises a second antenna in communication with a receiver other than the satellite.

11. A method for high-speed broadband communicating for a mobile platform, the method comprising:

transmitting a first signal from a mobile antenna on a first frequency;

receiving the first signal at a satellite;

transmitting the first signal from the satellite to a base station on a second frequency;

receiving the first signal at the base station;

transmitting a second signal from the base station to the satellite on the first frequency;

receiving the second signal at the satellite;

transmitting the second signal from the satellite to the mobile antenna on the second frequency; and

receiving the second signal at the mobile antenna.

12. The method of claim 11, wherein transmitting the first signal and transmitting the second signal comprise transmitting the first and second signals at different times.

13. The method of claim 12, further comprising generating the second signal in response to the first signal.

14. The method of claim 12, further comprising generating the first signal in response to the second signal.

15. The method of claim 11, further comprising generating the first signal in response to an input by a user at a workstation that is associated with the mobile platform.

16. The method of claim 11, wherein the mobile platform is an airborne aircraft.

17. The method of claim 11, wherein:

receiving the first signal and the second signal at the satellite comprise receiving the first signal and the second signal at a single transponder of the satellite; and

transmitting the first signal and the second signal from the satellite comprise transmitting the first signal and the second signal by the single transponder of the satellite.

18. A method for high-speed broadband communicating for a mobile platform, the method comprising:

generating a first signal at a user workstation in a mobile communications platform;

transmitting the first signal from the user workstation to a communications terminal including an antenna;

transmitting the first signal from the antenna to a satellite on a first frequency;

receiving the first signal at the satellite;

transmitting the first signal from the satellite to a base station on a second frequency;

relaying the first signal from the base station to a node of a remote network;

generating a second signal at the node of the network;

transmitting the second signal from the node of the network to the base station;

transmitting the second signal from the base station to the satellite on the first frequency;

receiving the second signal at the satellite;  
transmitting the second signal from the satellite to the mobile communications platform on the second frequency;  
receiving the second signal transmitted from the satellite to the mobile communications platform at the antenna of the communications terminal;  
transmitting the second signal from the antenna of the communications terminal to the user workstation; and  
receiving the second signal at the user workstation.

19. The method of claim 18, wherein transmitting the first signal and transmitting the second signal comprise transmitting the first and second signals at different times.

20. The method of claim 19, further comprising generating the second signal in response to the first signal.

21. The method of claim 19, further comprising generating the first signal in response to the second signal.

22. The method of claim 18, wherein the mobile platform is an airborne aircraft.

23. The method of claim 18, wherein:

receiving the first signal and the second signal at the satellite comprise receiving the first signal and the second signal at a single transponder of the satellite; and  
transmitting the first signal and the second signal from the satellite comprise transmitting the first signal and the second signal by the single transponder of the satellite.